

T News Letter **TDARS**

G3ZME
G6ZME

TELFORD AND DISTRICT AMATEUR RADIO SOCIETY

www.TDARS.org.uk

FOUNDED 1969

www.TelfordHamfest.co.uk

Issue 270

Sept-Nov 2015

www.TDARS.org.uk

Programme

www.telfordhamfest.co.uk

- September 23 Talk on 'Transport' by local historian Neil Clark
September 27 (Sun.) 'Railways on the Air' at Telford Steam Railway (Horsehay)
September 30 Analogue and Digital Repeaters—guest speakers Dave & Matt Porter :
Moving on—analogue, DStar and Yaesu Fusion systems.
October 7 Committee Meeting and GX3ZME On-the-Air

October 14 Winter Projects—get your thinking caps on for ideas, please
October 17-18 (w/e) Jamboree on the Air JOTA. Upto 4 Shropshire stations M0JZH
October 21 Surplus Radio Gear Auction.

October 28 Hallowe'en Social—Soup and a Roll

November 4 First-in-the-Month Committee Meeting and GX3ZME On-the-Air

November 11 Dr John Moyle G1AWJ guest speaker: " Looking for a Needle in a Haystack: Victorian Submarine Telegraph Cables and how they located and repaired faults before the thermionic valve. "
November 18 CAT control and Radio Software—Part 2 with M0JZH and M0KZB

November 25 Club Winter Projects #2

December 2 Committee Meeting and GX3ZME On-the-Air

December 9 'Radio Propagation' by G0KYA (DVD) followed by Skype with G0KYA

December 16 Christmas Meal—venue TBA

December 23 Mulled Wine and Mince Pie Social—club venue
December 30 NO MEETING

*For Amateur Radio Exam Training—enquiries to Mike G3JKX (01952 299677)
For Morse Training and Morse Proficiency Tests Martyn G3UKV or Eric M0KZB.
For Equipment Loans & Returns contact Don M0TBQ or Ian M0IRP
[Radio Amateur Exams- Latest: www.tdars.org.uk/html/training.html](http://www.tdars.org.uk/html/training.html)*

Editorial

This year's Telford HamFest was successful—even SURPRISINGLY successful, given the gentle downwards trend of recent years! Many, many thanks to all those who helped, including whoever controls the weather, which was almost perfect.

Numbers through the door were UP; table usage was UP; cash receipts at club stands was UP; positive comments were UP. I heard of only two isolated slightly negative comments re the lack of a 'main trader' (eg LAMCO or RadioWorld) and lack of a guest speaker, which we replaced by the TechnoJAM team from the Ormskirk area this year. Incidentally, the reasons given by the aforementioned companies were entirely understandable and exceptional and have not ruled out their presence next year.

This year, I had to undertake more phone calls than ever before to entice traders to make a firm commitment to come along. Outside traders in particular tend to hedge their bets, and avoid paying in advance, presumably as they have an eye to weather forecasts. Some others quite local to us (within, say 50 miles), tend to be rather snooty about rallies (no names drill), saying all their trade these days is online or via magazine advertising and subsequent phone calls. My reaction (perhaps illogically) tends to be "OK—I'll buy from elsewhere if you don't even support your local radio club's major event...." - and that applies even when I do eventually buy on-line or phone a company. Thus I chose to purchase a new Yaesu FT857d earlier in the year from a company in Hampshire, even though it offered no price advantage at the time. I also know of two other ttdars members who would have bought a rig over the counter if it had been available at our HamFest, and I expect there were others too.

Anyway, next year's Telford HamFest looks secure. We have made a provisional booking with Enginuity for Sunday 4th September 2016. With (or even without) a main trader present; TechnoJAM have also provisionally said they would be very happy to return in 2016 !

Finally, a plug for the TDARS forthcoming programme of events. As well as the dates issued on the front of this Newsletter which include several notable outside speakers, a talk by Dr Megan Argo—an astrophysicist and astronomer from Jodrell Bank— has also been booked for 13th January next year. So, please pass the word around, especially when a guest speaker has been invited. As noted previously, non-members are asked to pay a small admission fee when we have outside speakers, but of course pay nothing if they choose to join TDARS! And what a good deal they get

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TELFORD & DISTRICT AMATEUR RADIO SOCIETY

CHAIRMAN: Eric Arkinstall M0KZB (01743 240286)

VICE-CHAIRMAN: Martyn Vincent G3UKV (01952 255416)

SECRETARY: John Humphreys M0JZH (07824 737716)

TREASURER: Jim Wakenell G8UGL (01952 684173)

CURATOR : Don Nicholls M0TBQ (01952 411680)

NEWSLETTER EDITOR: Martyn Vincent G3UKV (01952 255416)

PUBLICITY : Dave GOCER (01630 638699 or 07971 416940, leave msg)

Committee: Simon G0UFE; Eric M0KZB; Martin 2E0TRO; Brian G6UDX; Rob M0TOY; Trophies/Certs: G3UKV; .QSL Manager Paul M0PNN; Assist. Curator: Ian M0IRP. Village Hall Committee Liaison officer Martin 2E0TRO

Qtc: News & Information



TDARS MEETINGS EVERY WEDNESDAY AT LITTLE WENLOCK VILLAGE HALL UNLESS INDICATED OTHERWISE ON THE FRONT PAGE PROGRAMME.

ROOM BOOKED FROM 7PM - 10PM.

MEETINGS USUALLY COMMENCE AT 8PM

Please note: A current membership card must be shown to borrow TDARS equipment. Please return borrowed equipment promptly .

Members' Subscriptions—update (September '15):- Martyn 2E0CTG, Dave 2E0DTB, Albert 2E0KDF, Speedy 2E0KLS, Martin 2E0TRO, David 2E0VCR, Andrew ('Buster') 2E0WCA, Peter 2E0ZSU, Malcolm 2E1DYL, Ray 2E1HTU, Norman G0ASP, Dave G0CER, Derek G0EYX, Brian G0HCT, Simon G0UFE, Mike G3JKX, Ken G3UDA, Martyn G3UKV, Jon G4JOW, Mike G4NKC, Mike G6DFD, Bill G6NWT, Brian G6UDX, John G7ACD, Jim G8UGL, Dave G8VZT, Dave GM3YEW, Ron M0EAK, Don M0FHM, Ian M0IRP, John M0JZH, Eric M0KZB, Paul M0PNN, Bob M0RJS, Richy M0RKY, Tony M0TAW, Don M0TBQ, Rob M0TOY, Peter M1FGN, John M6JAX, Sarah M6TZE. (Total 42)
If anyone is missing from this list, please let Jim 'UGL know, as he holds the membership records. Remember also to let Jim know of any changes—eg address, callsign, e-mail.

The committee also agreed that anyone passing their amateur radio licence exam and tutored by Mike 'JKX and his team, would automatically become a TDARS Member for the year. They would receive a Membership Card and Newsletter.

Don 'TBQ has undertaken a careful **club equipment stock-take and review** recently, and has found a number of items and antennas which have not been used for a very long time. Some of these items may come up For Sale at the next surplus auction (October 24). If a member has his/her eye on a particular item, it may well be worth while attending the Sale !

GB3TF has not been without its problems in recent weeks; to many members it seems a little 'deaf'. The transceiver and its logic board have been checked, together with both the transmit and receive aerials; all appear to be in full working order. The next stage is to install a filter or two to give better isolation to the receiver. Already a 21dB filter has been included in the TX coax, to remove any wideband noise from the transmitter; this has resulted in improved sensitivity already. The next stage will be to physically move the repeater, but not the aerials, to a more accessible location in the upstairs area. This involves extending both TX and RX feeders with high quality coax (already purchased) so that in future it will be far easier to work on the equipment and external filters with a spectrum analyser. A receive pre-amp (currently not in circuit) will overcome feeder losses, and TX power will only be marginally reduced.



The '**10 minute Talks**' earlier this summer featured GB3TF, which was brought down to the usual meeting room so that members could see the equipment which at present is quite inaccessible. Jim G8UGL brought along his 'clothes peg' 2 metre yagi which can be assembled in a very few minutes for portable activities. Brian 'UDX demonstrated how a 'wire thread insert', or 'helicoil' insert "is a fully formed insert that is significantly larger in diameter in its free state than the hole that it is intended for." Thus it can be used to repair damaged threads in many situations. Eric 'KZB explained the FFR ('Fitted For Radio') radio and time checks used in some military Land Rovers with which he was once involved.

G3Z Special Contest Callsign has had a few airings this year to date. Simon, John, Paul and Speedy used it for the 50 MHz Trophy in June, and the results show they came fifth overall in the Open Section, with 331166 points from 336 QSOs. Well done 50 MHz Team!

Other **G3Z** contest results show that TDARS came 7th (of 12) in the May Microwave Contest, despite only being operational on 10 and 24 GHz. Ops were Jim 'UGL, Mike 'NKC, Martyn 'UKV and Kevin 'UPF

Also Dave G0CER used **G3Z** in the March RTTY contest organized by BARTG, and came 32 of 85 entries in one section of this worldwide contest, with 88 QSOs and 25080 points.

If any club member wishes to use this special callsign, please let Martyn 'UKV know as he is the NoV holder. Nearly all international (HF) contests are eligible, plus many on VHF/UHF/SHF.

Still on the contest theme, G3ZME/P came 3rd. this year in the Mix & Match section of **VHF NFD** in early July, slipping back a couple of places from the 2014 results. Band by band:-

50MHz 75 QSOs, 14213 pts, 9th of 21 (Restricted section)

144MHz 206 QSOs, 41622 pts, 6th of 18 (Restricted section)

432MHz 52 QSOs, 9021 pts, 4th of 10 entries (Low Power section)

1296MHz 31 QSOs, 5666 pts, 2nd of 3 entries (Low Power section)

Many Thanks to all who got G3ZME/P on-air from Long Mynd this year, and gave their time and support.

As reported earlier, a group of enthusiasts came down from the Southport and District ARC (Ormskirk) to present **TechnoJAM.uk** at our recent HamFest. The team of five, led by Derek G7LFC also included Paul, David, Alison and Martin. As you can see, they set up a series of stations, to support the use of Raspberry Pi microprocessors on an individual basis, and they were kept busy throughout the day, and gave us a superb innovative feature at our event. They hope to return next year. Here's one unsolicited testimonial sent to SADARC:

"Many thanks to you and your team from SADARC visiting Telford Rally yesterday. My son and myself were privileged to be some of the first people to have the opportunity to explore the world of Raspberry Pi. The laminated work sheets were a great introduction and felt we had learnt a lot from the session. Thanks for the efforts made by all the team."

Andrew Moore



Photos: M0KZB

Blist's Hill Museum was the location of a morse code initiative as part of a secondary school science day in September. Martin 'TRO, Richard 'VXG, Eric 'KZB, Martyn 'UKV and Dave 'EIX set up two audio oscillator stations which always seem popular with visitors. A SW receiver was also available to show what present day CW sounds like on the HF bands.

The **TDARS Christmas Dinner** venue will probably change this year. Details to follow soon.

Congratulations to Simon 2W0CHV (north Wales) who has just got engaged to Beth, whom many of us met before they moved QTH. Look out for a new Station Manager.

A recent acquisition for the club was a complete **mobile scaffolding unit**, plus trailer to transport its sections. It allows safe access to heights of over 20 feet. The unit has already been used for maintenance work at the club QTH for the antennas, and is available for loan to members. Some non-urgent repairs to the trailer boards are required. It previously belonged to Simon G0UFE, who no longer required it for his business.

QSL cards and TDARS. Paul M0PNN writes: "During the last few years I have managed to keep the cost of the Club's QSLing activities very low by begging and repairing Epson r300 printers and using a CISS (Continuous Ink System). My last r300 failed so I can no longer print QSL cards as cheaply as before. About 70% of contacts required a QSL for the following calls, working out at about 2800 cards. GP3ZME/P (2011 and 2012), GB100TMD (2013) and GT3ZME/P (2014). This does not take into account GB8MD with over 1000 QSOs some years, GB0WPB, G3ZME/P, GX3ZME/P, GC3ZME/P and GX6ZME/P. A **lot** of printing. As I see it, the club has three choices: (i) Don't QSL at all (ii) Only QSL electronically (eQSL, LOTW and ClubLog) (iii) I continue to sort out the qsl cards but it's going to cost the club a lot more money." [Paul gave further details to the committee how this might be arranged.] As it is, 1000 QSL cards have been printed for the GB8MD (Marconi) activity, but it is timely to recognise the amount of time and cost that Paul has so generously given to the Club on all of our behalves for many years behind the scenes. Thank you again, Paul.

Eric, G0GAL, gave an excellent presentation in July on the theme of "**Shropshire RayNet**". Eric distributed a range of information about RayNet in general, as well as the County version. It all goes back to early 1953 and the gales and floods on the east coast of the UK, when 307 lives were lost and sea levels rose six metres above normal. A further 133 lives were lost in the Irish Sea with the loss of the ferry Princess Victoria. Normal comms. failed, but licensed radio amateurs came to the rescue, even though 'third part traffic' was not allowed by the amateur licence at that time. As late as 1950, the government had refused to relax the rules, even in emergencies. However, the R.A. licence was soon amended to allow 3rd Party traffic on behalf of a government approved list of 'User Services'. (Police, fire & ambulance initially), and the Radio Amateurs' Emergency Network was formed in November 1953. The current organisation has about 2000 members nationwide, but no paid staff. Shropshire Raynet provides invaluable communication services at a range of events within the County, and Eric would warmly welcome any new prospective recruits by either contacting him (erich.telford@blueyonder.co.uk), or the County Controller, Mark Jones G1DQI (shropshireraynet@hotmail.co.uk).



Martin Stokes shows off his radio equipment at Telford Hamfest technology and radio event at Enginuity in Coalbrookdale

Centre hosts annual convention

They are more used to meeting up on the airwaves, but fans of ham radio descended on Shropshire in person for a convention of communications technology this weekend.

The likes of Facebook and Twitter may have become the social media of choice for most, but the tried and tested technology of amateur "ham" radio is still alive and not well - and the focus of a burgeoning hobby scene for many.

Enthusiasts young and old flocked to the Enginuity centre in Coalbrookdale for a celebration of all things radio yesterday whether looking to buy components, try out the latest technology or simply meet like-minded ham fans in the flesh.

The analogue technology may have been superseded in many walks of life, but is still used to communicate around the world and beyond - as shown recently by amateur enthusiast Adrian Lane, from Gloucestershire, who made headlines recently when he contacted the International Space Station from his garden shed as it flew over the UK.

The Telford Hamfest was organised by Telford and District Amateur Radio Society. Organiser Martyn Vincent said: "It was an excellent day and the weather was very much in our favour."

"We had amateur radio enthusiasts from the Midlands, North West and Wales come down for the annual event."

"We think there were about 500 people in total and we are already planning for next year."

Ham radio fans stock up on supplies

HamFest Photos:
M0RJS

Shropshire Star cutting:
Martin Stokes of Mirfield
Electronics. Excellent
press coverage was the
result of Dave G0CER's
contacts and
experience as tdars PR.



SLUG's Sheep Worrier One ver 0.1beta -The project. By Dave G0CER
(AKA Shropshire's first space project!)

Most members will know that some of the Shropshire Linux Users Group (SLUG) members are also TDARS member and that Linux includes many amateur radio applications and programs. The group are in the early stages of a project to launch a balloon which can be tracked wherever it goes and hopefully do something like take pictures, video or whatever else can be attached to it. TDARS members John M6JAX and Dave G0CER and also SLUG member Stuart Adamson are leading the project.

The project originally suggested by Stuart and the name, '**Sheep Worrier One**' by John is expected to have various steps of development. The first recently with John taking the TX up the Wrekin and volunteers reporting on receiving it or not!

Stages :

- 1). Loaned (from Richard 'VXG') 70cm ~10milliwatt level TX, programmed to send FM signal and morse id, fitted with ¼ wave curly wire antenna soldered to the board taken up a local high place, The Wrekin – locals called upon to send reports in – best DX 5 miles (8 Km) line of sight.
- 2). Another TX taken up the Wrekin with more capabilities – transmit some kind of data (APRS?) and possibly accept some kind of input – GPS? And whatever else could be attached to it.
- 2.1) -2.x other tests to develop it.
- 3) Some kind of balloon (possibly tethered) + transmitter + payload (RasPi? +other) test
- 4) Public launch with chase cars, press and a call for helpers!

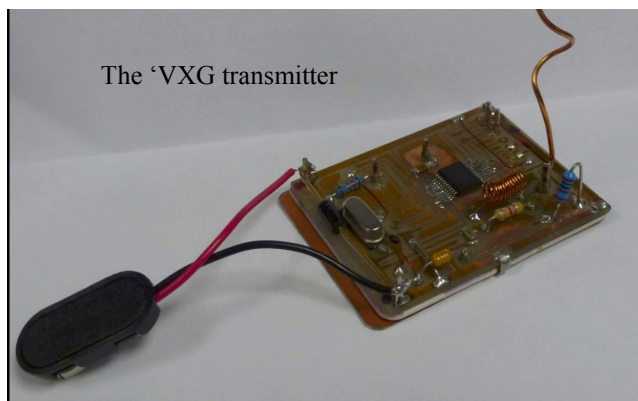
The point of all this.. to do something more interesting than watching TV. These things aren't new, but we haven't done it and let's see what we can do.

Any TDARS members like to help? – electrical, mechanical, RF, programming or just on a test or launch day, run a radio net (coordinate search and even bring in people in via other RF and internet) or whatever.

Maybe next year – we're taking this at the speed we can, everyone is busy, but it's a project to look forward to. If it doesn't happen or takes longer - we've had some fun, which is what it's all about.

See video on this page <https://shropshirelug.wordpress.com/>

***The point of all this... to do something more interesting than watching TV.
These things aren't new, but we haven't done it and let's see what we can do.***



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**Thanks for Newsletter input this time from Eric M0KZB, Don M0FHM, Dave G0CER.
Paul M0PNN, Eric G0GAL, Peter M1FGN**

Next edition early December: Keep it coming please!



Early barometer apparatus—submitted by Don M0FHM -
and still useful for forecasting good propagation at V/UHF

Before farmers could obtain calibrated barometers, they used a jar 3/4 fill with water.

Anything could be added to colour the water to make it easier to see.

Another narrow neck bottle was place in the jar as shown. When the water rose up the neck of the bottle as shown, the relative barometric pressure rose, showing the weather was good to harvest the fields.

[illegible]

Extract from Metro free newspaper—
submitted by Peter M1FGN



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WORK IN PROGRESS—or the struggle to get mobile on the HF bands Pt 2—

by Martyn G3UKV

At the end of part 1 of this article (Apr/May Newsletter) I mentioned the tricky nature of the 2 layers + variables of the menu system on the Yaesu FT857d all-band transceiver.. Well, I'm better than I was, but that's not saying much. I've more-or-less optimised the settings to suit me, programmed some memories on 6m, 2m and 70cm, and indeed had plenty of QSOs /M on 2m and 70cm, simplex and repeaters.

It's all hands-free now—headset for mic., control box by left knee, tcvr mounted in the boot with the separated front panel facing up at me from one of those rather useless storage trays fitted in modern cars; even a decent loudspeaker wedged in a drinking cup moulding in the central console thingy.

Towbar mounting bracket

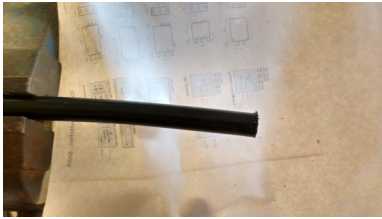


Barely visible is a string loop that goes around the hatch door and below the loading coil; this greatly stabilises the whip when actually /M. Normal access to the boot is still possible. I timed how long it takes to set up—just under 5 mins.: not bad! RF earthing was tricky—the tow bar is not earthed properly, so I use a child restraint bar in the boot area which is welded to the metalwork: fixed proper - Zero ohms! Well, had a few QSOs on 40 and 80 metres in “static mobile” mode—great, until I started the engine....S8-9 continuous racket. So, it's still **WORK IN PROGRESS**

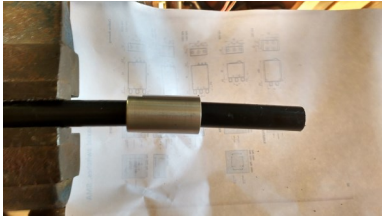
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Recently Martyn Vincent was donated some lengths of CFD600 coaxial cable and the appropriate crimp N-type connectors. After a few abortive attempts to fit the connectors using an inappropriately sized crimp tool that was to hand W.H. Westlake was contacted to see if he would bring some samples of the wide range of “clamp-on” N-type connectors he has. At the recent Hamfest I selected a pair of connectors that I thought could at least be “doctored” to fit.

When I got them home I compared the critical diameters and found no modifications would be necessary, I'd only need to work out the lengths for each cut. Hopefully the story in pictures below says it all.

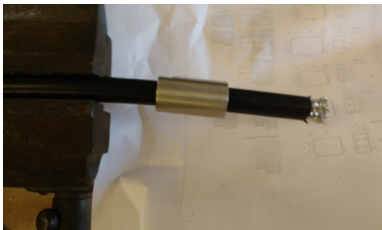


If necessary, prepare the end of cable by cutting it square . . .

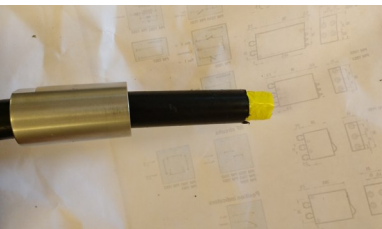


and slide long securing gland over outer jacket and along cable ensuring outer jacket sealing "O" ring is not displaced.

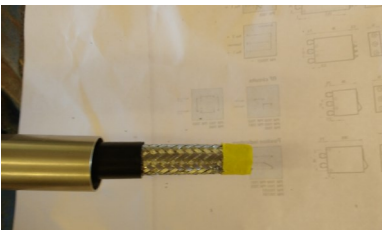
(In the connector I used there is a loose ring inside the securing gland with an internal taper. This will close the grip collet onto the outer jacket of the cable when the fitting is finally screwed together).



Now remove approximately 12 – 15 mm of outer jacket. . . .



and bind with one or two turns of thin adhesive tape. Sellotape would be equally effective being very thin).



Now remove a further 30 mm of outer jacket leaving the tape in place to prevent the braid splaying out.



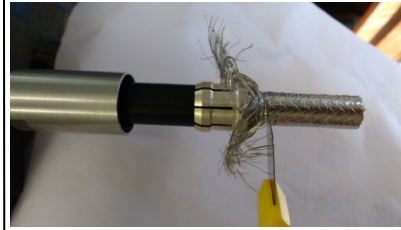
Feed the grip collet over the taped end thus



Ensure the internal step inside the grip collet seats onto the end of the outer jacket.



Now tease out the braid so that it will seat into the recess in the outer end of the grip collet.



Using a craft knife carefully cut through the foil and dielectric 2 to 3 mm beyond the end of the grip

collect. Do not apply excessive pressure to avoid scoring the inner conductor.



With care it should now be possible to remove the severed portion of foil and dielectric.

Using a twisting motion may be helpful.



Now trim the inner conductor so that it protrudes from the dielectric for about 12mm. I initially made my cut a little longer then reduced it to this

dimension. Once trimmed to length it will be helpful to file a lead on the end of the inner conductor to assist its entry into the sprung collect of the inner conductor.



The "business end" on the connector may now be fitted onto the inner conductor. If you have got the lengths correct the inner conductor will make a firm connection to the

centre pin via the inner conductor sprung collect and the braid will be gripped between the two pieces now fitted onto the cable end. The excess braid may now be trimmed . . .



....and the long securing gland may be drawn along the cable and the thread engaged.



Using two appropriately sized spanners screw the long securing gland onto the "business end" trying not to turn that portion on the cable. Finally check for end to end continuity of both inner and outer and there are no short circuits between them.